

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/24423

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G01N 1/10, 35/02, 35/08, 33/48,
US CL : 436/180, 48, 54; 422/68.1, 70, 63, 103

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 436/180, 48, 54; 422/68.1, 70, 63, 103

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|------------------------------------------------------------------------------------|-----------------------|
| X, E | US 2004/0104173 A1 (MANACH et al.) 03 June 2004, entire document | 1, 8, 15, 22 |
| X | US 6,419,824 A (GJERDE et al.) 16 July 2002, entire document | 1, 8, 15, 22 |
| X, P | US 2004/014238 A1 (KRUG et al.) 22 January 2004, entire document | 1, 15 |
| X, P | US 2003/0162295 A (WILSON) 28 August 2003, entire document | 1, 15 |
| A, T | US 2005/0000874 A1 (JINNO et al.) 06 January 2005, entire document | 1, 15 |
| A, T | US 6,802,967 A (MASUDA et al.) 12 October 2004, entire document | 1, 15 |
| A, P | US 6,635,173 B2 (BRANN) 21 October 2003 | 1, 15 |
| A | US 6,544,799 B1 (LEWIS et al.) 08 April 2003 | 1, 15 |
| A | US 6,254,835 B1 (FEYGIN) 03 July 2001 | 29 |



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"B" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&"

document member of the same patent family

Date of the actual completion of the international search

01 February 2005 (01.02.2005)

Date of mailing of the international search report

11 FEB 2005

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
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INTERNATIONAL SEARCH REPORTInternational application No.
PCT/US04/24423**C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|------------------------------------------------------------------------------------|-----------------------|
| A | US 5,248,480 A (GREENFEILD et al.) 28 September 1993, entire document | 29 |

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Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
Please See Continuation Sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐
☐

- The additional search fees were accompanied by the applicant's protest.
No protest accompanied the payment of additional search fees.

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BOX III. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claim(s) 1-28, drawn to A method and device for transferring one or more liquid samples in one or more containers to one or more measurement devices.

Group II, claim(s) 29-41, drawn to assemblies for use in separation based measurements.

The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The valve, pumping, and drawing means as required in Group I does not correspond to the special technical features of the housing, valve seal, valve ball, and hollow needle of Group II.